REMARKS

The amendments to pages 45, 55 and 64 of the specification correct typographical errors. New claims 81-83 are supported throughout the specification, in particular at page 71 at lines 11-21. These amendments do not add new matter to the application. Claims 1-13 and 25-80 are canceled solely to reduce the filing fee. The Applicants do not intend by these or any other amendments to abandon the subject matter of any claim as originally filed, and reserve the right to pursue such subject matter in this application or related applications, including but not limited to parent applications and continuing applications. A list of currently pending claims 13-24 and 81-83 as they would appear after entry of this amendment is attached hereto as **Exhibit A** and a marked up version of the amendments is attached hereto as **Exhibit B**.

The Patent Office required submission of substitute drawings to comply with the minimum margin requirements set out in 37 C.F.R. § 1.84(g). Substitute Formal Figures 1-5 (5 pages) are submitted herewith. The information depicted in the substitute drawing is identical to that in the drawing as originally filed.

The Patent Office also required submission of a substitute Sequence Listing to comply with the requirements for applications containing nucleotide and amino acid sequences set out in 37 C.F.R. §§ 1.821 -1.825. Submitted herewith is a substitute Sequence Listing in paper and computer-readable form, which indicates the location and definition of all amino acids denoted as Xaa within the Sequence Listing. The substitute Sequence Listing does not include new matter. I declare that the paper and computer-readable copies of the substitute Sequence Listing are identical.

Submitted herewith is a Declaration **(Exhibit E)**, executed by the inventors, for filing in the above-identified Application. Also enclosed is a copy of the Notice to File Missing Parts, together with our check in the amount of $490.00 in payment of the basic filing fee ($370), missing parts surcharge ($65.00), and the fee for one month extension of time ($55.00).

The Commissioner is hereby authorized to charge any deficiency in the amount enclosed or any additional fees which may be required under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 13-2855. A copy of this request is enclosed. Please refund any overpayment to Marshall, Gerstein & Borun at the address below.

Respectfully submitted,

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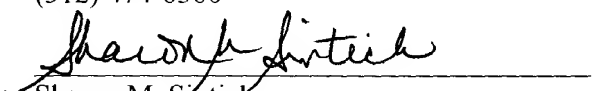
By: 

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February 11, 2002

EXHIBIT A

PENDING CLAIMS AFTER ENTRY OF THE AMENDMENT

13. (Amended) A method of detecting a cancerous cell expressing the polypeptide of SEQ ID NO: 24 or a fragment thereof in a biological sample, comprising

a) contacting the sample with an antibody or fragment thereof that specifically binds to the polypeptide of SEQ ID NO: 24 or a fragment thereof for a time period sufficient to form a complex; and

b) detecting the complex, so that if a complex is detected it indicates the presence of the cancerous cell.

14. The method of claim 13, wherein the polypeptide fragment comprises the amino acids 22 to 553 of SEQ ID NO: 24.

15. The method of claim 13, wherein the polypeptide fragment comprises the amino acids 412 to 426 of SEQ ID NO: 24.

16. The method of claim 13 wherein the antibody is conjugated to a radioisotope, affinity label, enzymatic label or flourescent label.

17. The method of claim 13, wherein the biological sample is selected from the group consisting of tissue, cell, blood, serum, lymphatic fluid, urine and cerebrospinal fluid.

18. The method of claim 13, wherein the cancerous cell is a brain cancer cell.

19. The method of claim 13, wherein the cancerous cell is a prostate cancer cell.

20. The method of claim 13, wherein the cancerous cell is a breast cancer cell.

21. The method of claim 13, wherein the cancerous cell is a skin cancer cell.

22. The method of claim 13, wherein the cancerous cell is a lymphoma cell.

23. The method of claim 13, wherein the cancerous cell is a sarcoma cell.

24. The method of claim 13, wherein the cancerous cell is as colon cancer cell.

81. The method of claim 13, wherein the cancerous cell is a leukemia cell.

82. The method of claim 13, wherein the cancerous cell is an ovarian cell.

83. The method of claim 13, wherein the cancerous cell is a pancreatic cell.

EXHIBIT B

MARKED UP VERSION OF AMENDED SPECIFICATION AND CLAIMS

In the Specification

At page 45 line 6:

The protein may also be produced by operably linking the isolated polynucleotide of the invention to suitable control sequences in one or more insect expression vectors, and employing an insect expression system. Materials and methods for baculovirus/insect cell expression systems are commercially available in kit form from, e.g., Invitrogen, San Diego, Calif., U.S.A. (the [MaxBat.RTM] MAXBAT™ kit), and such methods are well known in the art, as described in Summers and Smith, Texas Agricultural Experiment Station Bulletin No. 1555 (1987), incorporated herein by reference. As used herein, an insect cell capable of expressing a polynucleotide of the present invention is "transformed."

At page 45 line 15:

The protein of the invention may be prepared by culturing transformed host cells under culture conditions suitable to express the recombinant protein. The resulting expressed protein may then be purified from such culture (i.e., from culture medium or cell extracts) using known purification processes, such as gel filtration and ion exchange chromatography. The purification of the protein may also include an affinity column containing agents which will bind to the protein; one or more column steps over such affinity resins as concanavalin A-agarose, [heparin-toyopearl.RTM] HEPARIN-TOYOPEARL™ or [Cibacrom blue 3GA Sepharose.RTM.] CIBACROM 3GA SEPHAROSE™; one or more steps involving hydrophobic interaction chromatography using such resins as phenyl ether, butyl ether, or propyl ether; or immunoaffinity chromatography.

At page 55 line 16:

The presence of the peptide of the present invention having the activity of a B lymphocyte antigen(s) on the surface of the tumor cell provides the necessary costimulation signal to T cells to induce a T cell mediated immune response against the transfected tumor

cells. In addition, tumor cells which lack MHC class I or MHC class II molecules, or which fail to reexpress sufficient mounts of MHC class I or MHC class II molecules, can be transfected with nucleic acid encoding all or a portion of (e.g., a cytoplasmic-domain truncated portion) of an MHC class I [.alpha.] $\underline{\alpha}$ chain protein and [.beta..sub.2] $\underline{\beta_2}$ microglobulin protein or an MHC class II [.alpha.] $\underline{\alpha}$ chain protein and an MHC class II [.beta.] $\underline{\beta}$ chain protein to thereby express MHC class I or MHC class II proteins on the cell surface. Expression of the appropriate class I or class II MHC in conjunction with a peptide having the activity of a B lymphocyte antigen (e.g., B7-1, B7-2, B7-3) induces a T cell mediated immune response against the transfected tumor cell. Optionally, a gene encoding an antisense construct which blocks expression of an MHC class II associated protein, such as the invariant chain, can also be cotransfected with a DNA encoding a peptide having the activity of a B lymphocyte antigen to promote presentation of tumor associated antigens and induce tumor specific immunity. Thus, the induction of a T cell mediated immune response in a human subject may be sufficient to overcome tumor-specific tolerance in the subject.

At page 64 line 21:

Assays for chemotactic activity (which will identify proteins that induce or prevent chemotaxis) consist of assays that measure the ability of a protein to induce the migration of cells across a membrane as well as the ability of a protein to induce the adhesion of one cell population to another cell population. Suitable assays for movement and adhesion include, without limitation, those described in: Current Protocols in Immunology, Ed by J. E. Coligan, A. M. Kruisbeek, D. H. Marguiles, E. M. Shevach, W. Strober, Pub. Greene Publishing Associates and Wiley-Interscience (Chapter 6.12, Measurement of alpha and beta Chemokines 6.12.1-6.12.28); Taub et al. J. Clin. Invest. 95:1370-1376, 1995; Lind et al. APMIS 103:140-146, 1995; Muller et al Eur. J. Immunol. 25:1744-1748; Gruber et al. J. of Immunol. 152:5860-5867, 1994; Johnston et al. J. of Immunol. 153:1762-1768, 1994.

IN THE CLAIMS:

13. (amended) A method of detecting a cancerous cell expressing the polypeptide of SEQ ID NO: 24 or a fragment thereof in a biological sample, comprising

a) contacting the sample with an antibody or fragment thereof that specifically binds to the polypeptide of SEQ ID NO: 24 or a fragment thereof for a time period sufficient to form a complex; and

b) detecting the complex, so that if a complex is detected[, the] it indicates the presence of the cancerous cell [is detected].